***Unit 1: Alchemy*** Name:

***Lessons 1-10 Test Review*** Date: Pd:

In order to study for the test, you should:

* Review all classroom outlines for Lessons 1-10
* Review all vocabulary terms which are located at the end of each lesson in a list
* Look over all activity worksheets done for Lessons 1-10
* Read the lesson summaries found at the end of each lesson
* Review quizzes and homework assignments for Lessons 1-10

The test will be worth 100 points in Skyward. It will include both objective and free response portions.

You must have a calculator for the test. If you are absent on the day of the exam, please be ready to

take it immediately upon your return.

The following are some sample review questions for each lesson. This worksheet is a selected review

for Lessons 1-10 and does NOT cover all material for the test. Also, be aware that you should review

the concepts learned in these lessons but will also be required to apply this knowledge on the test.

**LESSON 1**

1. List 3 pieces of lab safety equipment in the classroom and their uses.

2. Sketch a picture and describe the use of:

a) flask b) beaker c) funnel

3. List 3 pieces of lab equipment that may be used for/while heating .

**LESSON 2**

4. in the Penny lab, how did we *prove* that the penny did not actually turn into gold?

**LESSON 3**

5. List 3 examples of matter and 3 examples of things that are not matter.

**LESSON 4**

6. a) How is mass measured? What units are used for mass?

b) How is volume measured? What units are used for volume?

7. a) A graduated cylinder contains 25.0 mL of water. b) Calculate the volume of a rectangular

A piece of metal is placed in the cylinder and the object with the dimensions of

water level rises to 38.0 mL. What is the volume of 2.5 cm x 4.5 cm x 4.0 cm

the object in mL? In cm3?

**LESSON 5**

8. Calculate the density of an object with a mass of 5.4 g and a volume of 8.2 mL.

9. What is the volume of an object with a density of 9.0 g/cm3 and a mass of 26.5 g?

10. Why is density an intensive property?

**LESSON 6**

11. What are the chemical symbols for aluminum, neon, and calcium?

12. What are the chemical formulas for carbon dioxide and water?

13. What is the difference between LiCl*(s)* and LiCl*(aq)*?

**LESSON 7**

14. List the copper compounds (names & formulas) formed in each step of the copper cycle:

a) Solid copper powder was obtained:

b) Nitric acid, HNO3*(aq)*, was added:

c) Sodium hydroxide, NaOH*(aq)*, was added:

d) The solution was heated and filtered:

e) Sulfuric acid, H2SO4*(aq)*, was added:

15. What are some observations that indicate that a chemical change has occurred?

16. Why is adding nitric acid to copper a chemical reaction but water melting is not?

**LESSON 8**

17. How did the copper cycle lab show the law of conservation of matter?

**LESSON 9**

18. How did Mendeleev organize his periodic table?

19. What is reactivity?

20. Given the following example compounds, predict the formula for the compound containing Li and O.

Explain.

*given formulas:* LiCl, K2S, NaCl, Rb2O

**LESSON 10**

21. Where are the most reactive elements on the periodic table?

22. What is the main difference between the organization of the modern periodic table and Mendeleev’s periodic table?

23. What are the names of Groups 1, 2, 17, and 18, respectively?

24. Where are the transition elements?